| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/933,063 | 08/20/2001 | William D. Goodman | Verizon-10 | 6764 |

| | | | EXAMINER |
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| 32127 7590 03/15/2004 | | | PEACHES, RANDY |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 2686 | 3 |

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/933,063 | GOODMAN, WILLIAM D. |
| | Examiner | Art Unit |
| | Randy Peaches | 2686 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☐ Responsive to communication(s) filed on _____ .
2a)☐ This action is **FINAL**.     2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-10 and 13-20_ is/are rejected.
7)☒ Claim(s) _11 and 12_ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All  b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____ .
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1.      ***Claims 1-3, 13-17 and 20*** are rejected under 35 U.S.C. 102(e) as being

anticipated by Suojasto (U.S. Patent Number 6,487,413 B1).

Regarding ***claim 1***, Suojasto teaches of a method of compiling statistics (location

update request/messages) on mobile stations, which reads on claimed "processing

active wireless device statistics", the method comprising:

- receiving said statistics on the number of active mobile stations, as taught in

    column 2 lines 59-65, in a least one area, which reads on claimed

    "communication cell".  See column 2 lines 13-20;

- estimating the number said mobile stations, which reads on claimed "people",

    both passive and active mobile stations (see column 2 lines 28-39), in a

geographical area, which reads on claimed "region", if interest from the received

statistics on the number of said active mobile stations.

Regarding *claim 2*, according to *claim 1*, wherein receiving statistics include:

- receiving information from a plurality of different communication cells grouped

    into location areas (FIGURE 2), said information including at a first count

    corresponding to a number of said active mobile stations in a first communication

    cell and a second count corresponding to the number of said active mobile

    stations in a second communication cell.  See columns 6 and 7 lines 64-67 lines

    1-4, respectively.

Regarding *claim 3*, according to *claim 2*, wherein estimating the number of people in a

said geographical area of interest includes:

- correlating the said first and second counts corresponding to the first and second

    communications cell, respectively, to the said geographical area of interest to

    generate a set of said location areas, which reads on claimed "target area",

    statistics including an estimate of the number of said active mobile stations in the

    said area of interest.  See column 2 lines 39-47.

Regarding *claim 13*, according to *claim 1*, wherein receiving statistics on a number of

said active mobile stations include:

- receiving said active mobile station statistics corresponding to different points in time. See column 4 lines 8-16 lines 30-35; and

- generating, from the received said active mobile stations statistics corresponding to at least tow different points in time, as disclosed in column 6 lines 20-29, information on the capacity, which reads on claimed "flow of traffic", in the said geographical area of interest.

Regarding *claim 14*, Suojasto teaches of a method of generating a traffic flow report, the method comprising the steps of:

- collecting the said active mobile stations statistics from a cell, which reads on claimed "communication cell" over predetermined intervals, which reads on claimed "period of time". See columns 5 and 6 lines 40-49, 66-67 lines 1-9, respectively; and

- detecting changes in the collected said active mobile stations statistics by taking into consideration both the active and passive mobile stations, which reads on claimed "changes in the collected statistics", as taught in column 6 lines 5-9; and

- generating a report, as disclosed in column 4 lines 30-35, that disclose the traffic capacity based on the said active and passive mobile stations collected statistics.

Regarding *claim 15*, according to *claim 14*, wherein detecting changes include at least one of an increase and a decrease in the number of said active mobile stations. Further, Suojasto discloses that within a defined said geographical area, the system

monitors the traffic based on the activity of the said mobile stations. The said activity is related to active (a call going on) or passive (no call going on). Therefore, it is inherent that the increase and decreasing of the recorded traffic count is apparent, since the said traffic report is base on both active and passive mobile station with a defined geographical area.

Regarding *claim 16*, according to *claim 14*, wherein detecting changes include changes in that mode of a said mobile station from active to passive, which reads on claimed "identity", being serviced by a cell.

Regarding *claim 17*, Suojasto teaches of an apparatus for estimating the number of mobile stations, which reads on claimed "people", in a geographical area, which reads on claimed "region", the apparatus comprising:

- a control unit (6), which reads on claimed "interface", for receiving a said active mobile station count from at least one communication cell;

- a means for estimating, as taught in column 2 lines 57-65, based on the number of said active mobile station count the number of said mobile station in a said geographical area including at least a portion of a said communication cell. See column 5 lines 40-49.

Regarding *claim 20*, Suojasto teaches in FIGURE 2 column 5 lines 12-13 and claim 5,

of a cellular radio system, which reads on claimed "wireless communication system",

the system comprising:

- a plurality of base station (BTS1-BTS5), which reads on claimed "wireless
  communication centers, each said BTS collecting statistical information on the
  number of said active mobile stations being serviced at a predetermined interval,
  which reads on claimed "point in time" . See column 2 lines 13-38.

- a control unit (6), coupled to the said BTS, the said control unit receiving the said
  BTS statistics on the number of said active mobile stations being serviced, the
  said control unit (6) including: See FIGURE 2.

- means for estimating the number said mobile stations, which reads on claimed
  "people", both passive and active mobile stations (see column 2 lines 28-39), in a
  geographical area, which reads on claimed "region", if interest from the received
  statistics on the number of said active mobile stations.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.    *Claims 4-8* are rejected under 35 U.S.C. 103(a) as being unpatentable over

Suojasto (U.S. Patent Number 6,487,413 B1) in view Yang et al (U.S. Patent Number

6,192,243 B1).


Regarding *claim 4*, according to *claim 3*, Suojasto teaches of a method wherein

estimating the number of said mobile stations in a said geographical area of interest

includes:

- receiving said statistics on the number of active mobile stations, as taught in

  column 2 lines 59-65, in a least one area, which reads on claimed

  "communication cell".  See column 2 lines 13-20;

- estimating the number said mobile stations, which reads on claimed "people",

  both passive and active mobile stations (see column 2 lines 28-39), in a

  geographical area, which reads on claimed "region", if interest from the received

  statistics on the number of said active mobile stations.

However, Suojasto does not teach of performing an extrapolating function with said

statistics to determine the estimate number of people in the geographic area of interest.

Yang et al discloses in column 2 lines 56-65 an algorithm is used to determine

traffic within a cell.

Therefore, at the time of the invention it would have been obvious to a person of

ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to

include Yang et al (U.S. Patent Number 6,192,243 B1) in order to calculate the number

of said mobile stations, which reads on claimed "people", within a geographical area

based on the said active and passive statistical information.

Regarding *claim 5*, as the above combination of Suojasto (U.S. Patent Number

6,487,413 B1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the

combination according to *claim 4,* further comprises:

- generating a report, requested by an operator, as taught by Suojasto in column 4

  lines 8-16 lines 30-44, which includes the estimate of the number of said mobile

  stations in the said geographical area of interest; and

- sending, which reads on claimed "outputting", said report to said operator. See

  Suojasto column 4 lines 30-35.

Regarding *claim 6*, as the above combination of Suojasto (U.S. Patent Number

6,487,413 B1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the

combination according to *claim 4,* further comprises:

- allows an accurate picture of said mobile stations in a said geographic area from

  the received said statistics on the number of said active mobile stations. See

  Suojasto column 4 lines 29-35.

Regarding *claim 7*, as the above combination of Suojasto (U.S. Patent Number

6,487,413 B1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the

combination according to *claim 6,* wherein the said active mobile stations from different

cells each at least partially, as seen in Suojasto FIGURE 2, said geographical area of interest are used to accurate picture of said mobile stations. See Suojasto column 3 lines 45-49.

Regarding *claim 8*, as the above combination of Suojasto (U.S. Patent Number 6,487,413 B1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the combination according to *claim 6,* further comprising:

- generating a report, requested by an operator, as taught by Suojasto in column 4 lines 8-16 lines 30-44, which includes the estimate of the number of said mobile stations in the said geographical area of interest and accurate picture of said mobile stations in a said geographic area from the received said statistics on the number of said active mobile stations. See Suojasto column 4 lines 29-35.

3.      *Claims 9-10 and 18* are rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto (U.S. Patent Number 6,487,413 B1) in view Seraj (U.S. Patent Number 6,535,745 B1).

Regarding *claim 9*, as claimed in claim *2,* Suojasto teaches wherein receiving statistics include:

- receiving information from a plurality of different communication cells grouped into location areas (FIGURE 2), said information including at a first count corresponding to a number of said active mobile stations in a first communication

cell and a second count corresponding to the number of said active mobile stations in a second communication cell. See columns 6 and 7 lines 64-67 lines 1-4, respectively.

However, Suojasto does not disclose the fact that each count, in regards to the capacity of the network, varies based on the type of device.

Seraj teaches in column 4 lines 19-24, of mobile stations, such as communication Personal Communication Service (PCS) or cellular phones, but also includes computers, PDA's or other wireless terminals. Although, the cited reference of Seraj does not clear specify that the traffic information, which reads on claimed "count", received from the first and second cells depends on the type of device within the cell, it is obvious that the method of estimating the traffic conditions of a cell takes into consideration the different type of devices being used within that given area and collectively, despite the type of device being used within the cell, gather the said traffic information.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Seraj (U.S. Patent Number 6,535,745 B1) in order to obtain the said counts within a first and second cell dependent on the type of said mobile stations.

Regarding *claim 10,* the above combination Suojasto (U.S. Patent Number 6,487,413 B1) in view of Seraj (U.S. Patent Number 6,535,745 B1) are made, the combination according to *claim 18,* Seraj teaches where the type of said mobile station can include

a first type as a cellular phone, see column 4 lines 19-27, and a second type can be a personal data assistant (PDA).

Regarding *claim 18*, as claimed in *claim 17*, Suojasto teaches

- wherein means for estimating includes: means for correlating the said active and passive mobile stations to a defined geographical area of interest to generate a set of said location areas statistics including an estimate of the number of said active mobile stations in a said geographical area of interest.

However, Suojasto fails to teach of obtaining a first and second count corresponding to the first and second cell.

Seraj teaches in column 3 lines 15-32, of receiving traffic statistics from a first and second cell.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Seraj (U.S. Patent Number 6,535,745 B1) to obtain the accurate count of said mobile stations within a first and second communication cell to efficiently estimating the total traffic count within a defined said geographical area.

4.      *Claim 19* is rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto (U.S. Patent Number 6,487,413 B1) in view Seraj (U.S. Patent Number 6,535,745 B1) and in further view of Yang et al (U.S. Patent Number 6,192,243 B1).

Regarding *claim 19*, the above combination Suojasto (U.S. Patent Number 6,487,413 B1) in view of Seraj (U.S. Patent Number 6,535,745 B1) are made, the combination according to *claim 18*, teaches of (Suojasto) estimating the number said mobile stations, which reads on claimed "people", both passive and active mobile stations (see column 2 lines 28-39), in a geographical area, which reads on claimed "region", if interest from the received statistics on the number of said active mobile stations.

However the combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Seraj (U.S. Patent Number 6,535,745 B1) fails to teach of performing an extrapolating function with said statistics to determine the estimate number of people in the geographic area of interest.

Yang et al discloses in column 2 lines 56-65 an algorithm is used to determine traffic within a cell.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Seraj (U.S. Patent Number 6,535,745 B1) to further include Yang et al (U.S. Patent Number 6,192,243 B1) in order to calculate the number of said mobile stations, which reads on claimed "people", within a geographical area based on the said active and passive statistical information.

### Allowable Subject Matter

**Claims 11 and 12** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claim 11**, according to **claim 9**, further comprising:

- predicting characteristics of the people in the geographic region of interest from the type and number of active wireless devices in the geographic region of interest.

Regarding **claim 11**, according to **claim 9**, further comprising the step of:

- generating a report including the estimate of the number of people in the geographical area of interest and the information on the predicted characteristics of the people.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Peaches whose telephone number is (703) 305-8993. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

*Marsha O Banks-Harold*

MARSHA D. BANKS-HAROLD

Randy Peaches                          SUPERVISORY PATENT EXAMINER
March 8, 2004                          TECHNOLOGY CENTER 2600